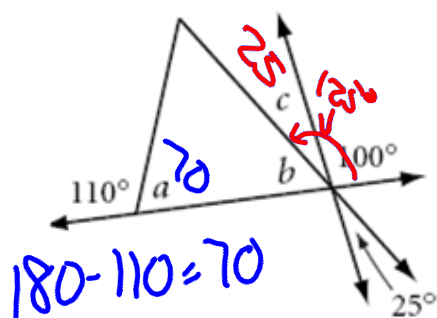


OPENER: Find the missing angles. Then explain in FULL SENTENCES how you were able to find each angle.



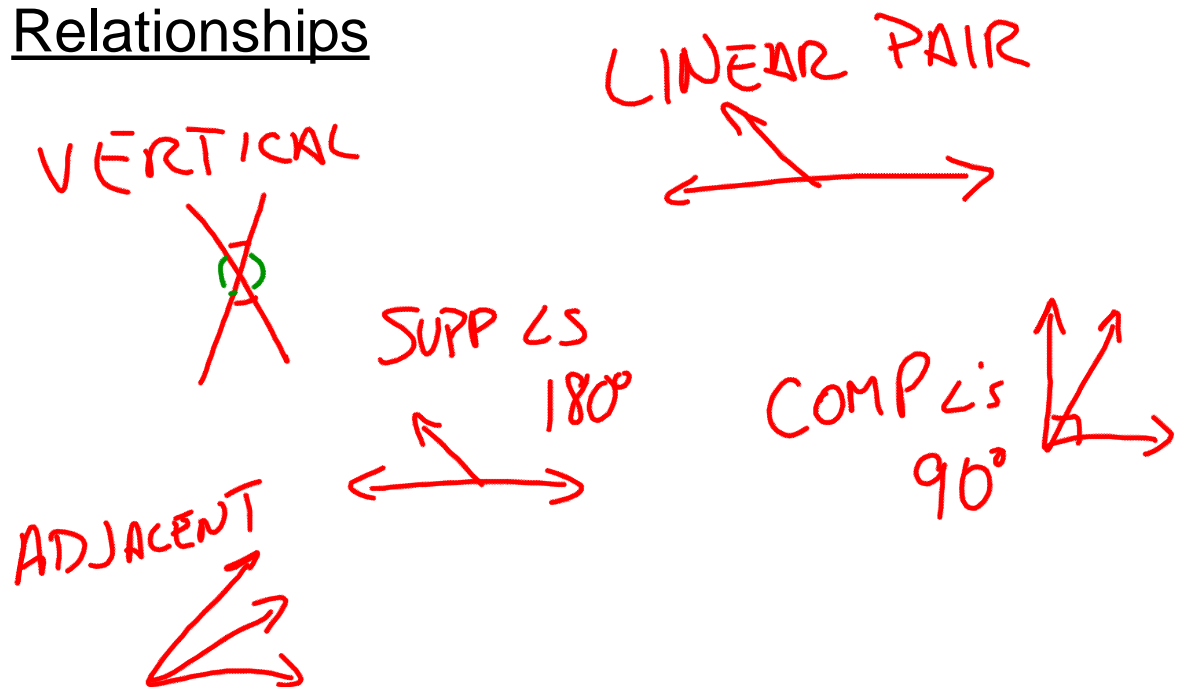
a = 70°

b = 55°

c = 25°

$180 - 125 = 55^\circ$

1.5 Day 3: Solving with Angle Pair Relationships



Set up for problems:

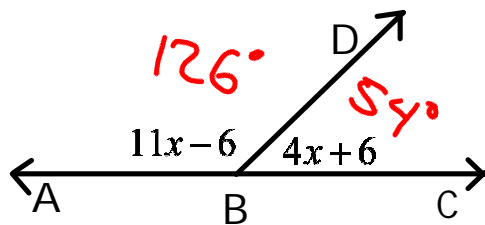
Option 1: Set equal to each other -----> Vertical Angles are congruent.

Option 2: Add up to 90 -----> Complementary Angles

Option 3: Add up to 180 -----> Supplementary Angles



Example 1: Solve for the Variable.



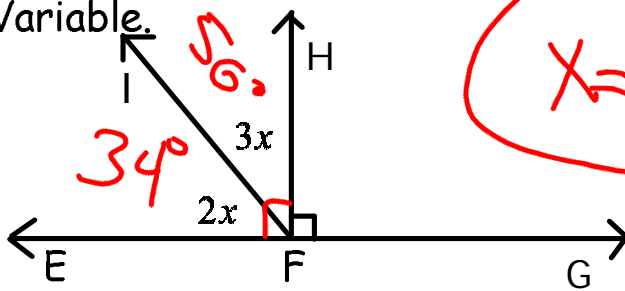
PART + PART = WHOLE

$$(11x-6) + (4x+6) = 180^\circ$$

$$x = 12^\circ$$

$$\begin{array}{r} 15x \\ \hline 15 \end{array} = \frac{180^\circ}{15}$$

Example 2: Solve for the Variable.



$$x = 18^\circ$$



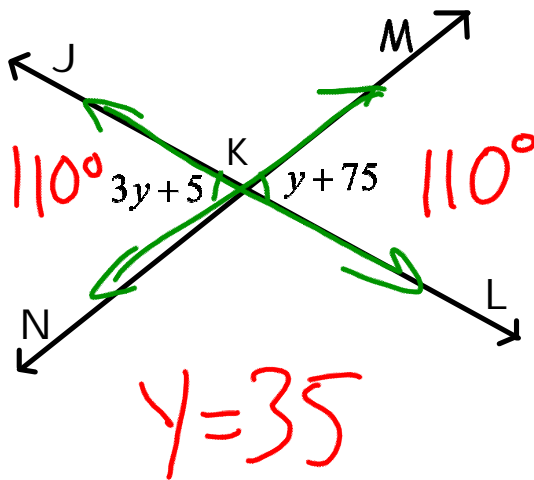
$$3x + 2x = 90^\circ$$

$$2x + 3x + 90 = 180$$

$$5x = 90$$

$$\frac{5x}{5} = \frac{90^\circ}{5}$$

Example 3: Solve for the Variable.



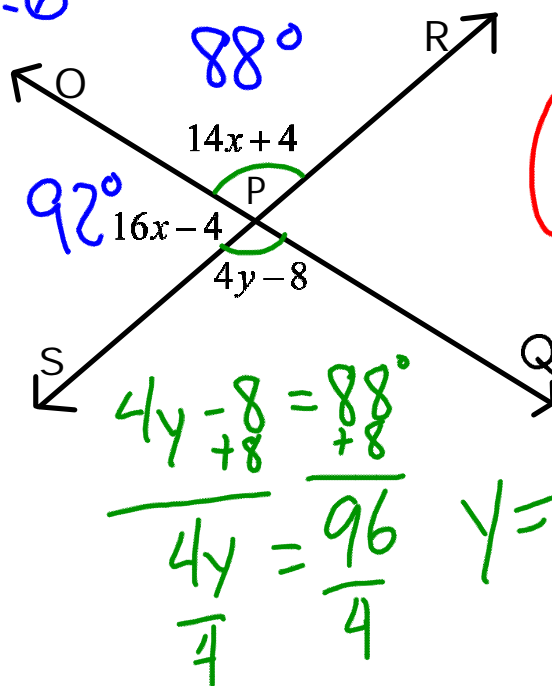
VERT. LS ARE \cong

$$3y+5 = y+75$$

$$\begin{array}{r} -y \\ \hline 2y+5 = 75 \\ -5 \quad -5 \\ \hline 2y = 70 \end{array}$$

Example 4: Solve for the Variable.

$$x=6$$



$$(14x+4) + (16x-4) = 180$$

$$30x + 0 = 180$$

$$\frac{30x}{30} = \frac{180}{30}$$

$$x=6$$

